

REMARKS

In the Office Action, the Examiner rejected claims 1-15 and 26-41. By this paper, Applicant amended claims 26 and 36 to clarify certain features and expedite allowance of the present application. These amendments do not add any new matter. In view of the amendments and the following remarks, the Applicant respectfully requests allowance of all pending claims.

Claim Rejections Under 35 U.S.C. § 102

The Examiner rejected claims 1-5, 7, and 8 under 35 U.S.C. § 102(e) as anticipated by Otsuka (U.S. Patent No. 6,563,923). Further, the Examiner rejected claims 30 and 31 under 35 U.S.C. § 102(e) as being anticipated by Krishnan (U.S. Patent No. 6,377,685). The Applicant respectfully traverses these rejections.

Legal Precedent

Anticipation under section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under section 102, a single reference must teach each and every limitation of the rejected claim. *Atlas Powder v. E.I. du Pont*, 750 F.2d 1569 (Fed. Cir. 1984). Accordingly, the Applicants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter. The prior art reference also must show the *identical* invention “*in as complete detail as contained in the ... claim*” to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989).

Independent Claim 1 and Dependent Claims 2-5, 7, and 8

Applicant respectfully asserts that the Otsuka reference does not teach or suggest every aspect of independent claim 1 as amended. For example, claim 1 recites, *inter alia*, “the key having a third data entry value associated with simultaneously *depressing and*

deflecting the key in a predetermined direction to engage both the first and second portions of the key.” (Emphasis added). It should be noted that the term “depress” may be defined as “to put into a lower position; press down” and the term “deflect” may be defined as “to bend or turn aside.” The RANDOM HOUSE COLLEGE DICTIONARY 358 and 349 (rev. ed. 1988).

In contrast to amended independent claim 1, the Otsuka reference merely teaches four contact points that can be pressed straight down either individually or simultaneously to produce up to five different characters. See Otsuka, col. 3, lines 26-38. Specifically, the Otsuka reference teaches “a key top 10, a key substrate 12, and four contact points 14a to 14d which are provided on each side in the peripheral portion of the key substrate 12.” *Id.* at col. 4, lines 7-10. Further, the Otsuka reference teaches that “[a]ny contact point among the four contact points can be contacted depending on which one of the pressing positions 1 to 5 is pressed on the key top 10.” *Id.* at col. 4, lines 10-12. As illustrated in FIG. 1 of the Otsuka reference, it is clear that the Otsuka reference fails to teach simultaneously depressing and *deflecting* a key. See *id.*, Fig. 1. Rather, the Otsuka reference merely teaches simultaneously *depressing* four contact points 14a, 14b, 14c, and 14d straight down (i.e., in a perpendicular direction) by pressing the key top 10 in a single central position (i.e., position 1) between the four contact points 14a, 14b, 14c, and 14d. See *id.*, Figs. 1 and 3; col. 4, lines 42-58; col. 5, lines 32-35. Accordingly, the Applicant stresses that the Otsuka reference is deficient.

In view of the deficiencies set forth above, Applicant respectfully asserts that the Otsuka reference fails to anticipate independent claim 1 under 35 U.S.C. § 102. Indeed, Applicant respectfully requests that the Examiner withdraw the rejections under 35 U.S.C. § 102 and allow independent claim 1. Further, Applicant requests that the Examiner allow the claims depending from independent claim 1 based on their dependency and based on unique matter recited in each dependent claim.

Independent Claim 30 and Dependent Claim 31

Applicant respectfully asserts that the Krishnan reference does not teach every aspect of amended independent claim 30 as required for anticipation under 35 U.S.C. § 102. For example, claim 1 recites, *inter alia*, “user readable indications associated with the plurality of

keys displayed in relation to the plurality of keys in *positions relating to a QWERTY keyboard.*” (Emphasis added).

In contrast to amended independent claim 30, the Krishnan reference teaches cluster keys, which are clearly *not* arranged in a QWERTY configuration. *See* Krishnan, col. 14, lines 1-14; *see also id.* at Fig. 1. Specifically, the Krishnan reference teaches that the cluster keys are in a cluster key arrangement including “twelve cluster keys configured in an arrangement of three columns by four rows, such as conventionally found on standard telephones.” *Id.* at col. 14, lines 2-6.

In the Office Action, the Examiner suggested that the text at column 24, lines 5-32 of the Krishnan reference teaches “user readable indications associated with the plurality of keys displayed in relation to the plurality of keys in positions relating to a QWERTY keyboard,” as presently recited in claim 30. Applicant respectfully stresses that the cluster key arrangement described in the Krishnan reference is *not* a QWERTY configuration. Indeed, in the portion of the Krishnan reference cited by the Examiner, the Krishnan reference teaches away from a QWERTY arrangement of keys (i.e., one character per key) and does not even mention a QWERTY arrangement of characters with *multiple characters per key*. For example, the Krishnan reference states “current art is deficient in that it provides *no choice of finger actuation* because the keycaps are based on the emulation of *QWERTY type keys.*” Krishnan, col. 24, lines 29-31 (emphasis added). In other words, Krishnan distinguishes the cluster key arrangement over prior art keyboards, which merely have a plurality of keys individually actuatable (i.e., for a single character) in a QWERTY configuration rather than providing multiple choices of actuation (i.e., multiple characters) for each individual key. However, the multiple characters on the keys of Krishnan are not arranged in a QWERTY arrangement. Accordingly, the Krishnan reference fails to teach each and every feature of independent claim 30.

In view of the deficiencies set forth above, Applicant respectfully asserts that the Krishnan reference fails to anticipate independent claim 30 under 35 U.S.C. § 102. Indeed, Applicant respectfully requests that the Examiner withdraw the rejections under 35 U.S.C. §

102 and allow independent claim 30. Further, Applicant requests that the Examiner allow the claims depending from independent claim 30 based on their dependency and based on unique matter recited in each dependent claim.

Claim Rejections under 35 U.S.C. § 103(a)

The Examiner rejected claims 6, 9-15, 26-29, and 32-41 under 35 U.S.C. § 103(a) as obvious over Otsuka (U.S. Patent No. 6,563,923) in view of Krishnan (U.S. Patent No. 6,377,685). The Applicant respectfully traverses these rejections.

Legal Precedent

First, the burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d. 1430 (Fed. Cir. 1990). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). The Examiner must provide objective evidence, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002). Moreover, a statement that the proposed modification would have been “well within the ordinary skill of the art” based on individual knowledge of the claimed elements cannot be relied upon to establish a *prima facie* case of obviousness without some *objective reason to combine* the teachings of the references. *Ex parte Levengood*, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993); *In re Kotzab*, 217 F.3d

1365, 1371, 55 U.S.P.Q.2d. 1313, 1318 (Fed. Cir. 2000); *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 U.S.P.Q.2d. 1161 (Fed. Cir. 1999).

Second, it is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 U.S.P.Q. 769, 779 (Fed. Cir. 1983); M.P.E.P. § 2145. Moreover, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (CCPA 1959); see M.P.E.P. § 2143.01.

Dependent Claims 6 and 9-11

Applicant respectfully asserts that the cited references, whether considered together or separately, do not teach every aspect of amended independent claim 1, from which claims 6 and 9-11 depend. For example, claim 1 recites, *inter alia*, “the key having a third data entry value associated with simultaneously *depressing and deflecting* the key in a predetermined direction to engage both the first and second portions of the key.” (Emphasis added).

The Examiner relied on the Otsuka reference for its alleged teaching of the above-quoted feature of claim 1. *See* Office Action, page 5. However, as previously discussed regarding the rejection of independent claim 1 under 35 U.S.C. § 102, the Otsuka reference merely teaches simultaneously *depressing* four contact points 14a, 14b, 14c, and 14d by pressing the key top 10 straight down (i.e., in a perpendicular direction) in a single central position (i.e., position 1) between the four contact points 14a, 14b, 14c, and 14d. Indeed, it is clear that the Otsuka reference fails to teach *simultaneously depressing and deflecting* a key.

The Krishnan reference does not remedy the deficiencies of the Otsuka reference. In fact, the Examiner does not even allege that the Krishnan reference teaches “the key having a third data entry value associated with simultaneously *depressing and deflecting* the key in a predetermined direction to engage both the first and second portions of the key,” as recited in

claim 1. (Emphasis added). In contrast to the present claim 1, the Krishnan reference teaches a cluster key arrangement including primary and secondary keys that provide a user with the ability to select one of a plurality of key elements by independently depressing different portions of the key. *See* Krishnan, col. 14, lines 1-14. Specifically, the Krishnan reference teaches that “[i]f the primary key is depressed, none of the associated keys may contact the substrate.” *Id.* at col. 7, lines 27-29. Thus, secondary keys cannot be actuated when the primary key is actuated. *See id.* at col. 8, lines 64-65. Further, when more than one secondary key is depressed, a signal is not generated, an error signal is generated, or uniqueness is established by precluding all but one key from actuation. *See id.* at col. 8, lines 34-55; *see also id.* at col. 15, lines 23-29.

In view of the deficiencies set forth above, Applicant respectfully stresses that the cited references, taken alone or in combination, fail to teach or suggest all of the present claim features of independent claim 1 or the claims depending therefrom. Accordingly, Applicant respectfully asserts that claims 6 and 9-11 are not obvious over Otsuka in view of Krishnan. Applicant respectfully requests withdrawal of the foregoing rejections under 35 U.S.C. § 103.

Independent Claim 12 and Dependent Claims 13-15

Applicant respectfully asserts that the cited references cannot be combined to teach every aspect of independent claim 12, from which claims 13-15 depend. For example, claim 12 recites, *inter alia*, “a plurality of user readable indications having alphabetic characters arranged in position relating to a QWERTY keyboard.” (Emphasis added).

Again, the Examiner admitted that the Otsuka reference “fails to teach the user readable indications having alphabetic characters arranged in positions relating to a QWERTY keyboard.” *See* Office Action, page 5. The Examiner then attempted to remedy the deficiencies of the Otsuka reference by combining it with the Krishnan reference. *See* Office Action, page 6. However, the Otsuka and Krishnan references in fact teach away from such a combination. For example, regarding a QWERTY keyboard configuration, the Krishnan reference states that “the current art is deficient in that it provides *no choice of*

finger actuation because the keycaps are based on the emulation of *QWERTY type keys* which are tiny.” Krishnan, col. 24, lines 29-31. Clearly, the Krishnan reference teaches that use of a QWERTY arrangement of keys (i.e., one character per key) lacks the multiple choices of finger actuation provided by the cluster keys (i.e., 5, 6, or 7 characters per key). *See id.*, Figs. 1-3). Again, the Krishnan reference does not even mention a *QWERTY* arrangement of *multiple characters* disposed on each key. Instead, as quoted above, the Krishnan reference merely points out the *deficiencies* of the conventional QWERTY keyboard, which includes a very large number of keys to provide one key for each letter in the alphabet (i.e., 26 keys), one key for each number (i.e., 10 keys), and so forth. *See* Krishnan, col. 24, lines 29-31. Accordingly, the Krishnan reference teaches away from the combination suggested by the Examiner.

In view of the deficiencies set forth above, Applicant respectfully asserts that the references cited by the examiner cannot be combined to reject independent claim 12 or the claims depending therefrom. Accordingly, Applicant respectfully asserts that claims 12-15 are not obvious over Otsuka in view of Krishnan. Applicant respectfully requests withdrawal of the foregoing rejections under 35 U.S.C. § 103.

Independent Claims 26, 36, and 38, and Dependent Claims 27-29, 32-35, 37, and 39-41

Applicant respectfully asserts that, whether considered together or separately, the cited references fail to teach each and every aspect of independent claims 26, 36, and 38. For example, independent claim 26 recites, *inter alia*, “a multifunctional key ... wherein at least two portions of the multifunctional key are cooperatively moveable by *pivotaly depressing* the multifunctional key to reference an additional value.” (Emphasis added). Independent claim 36 recites, *inter alia*, “referencing a third alphanumeric character in response to cooperatively *depressing* the first portion *and deflecting* the second portion.” (Emphasis added). Independent claim 38 recites, *inter alia*, “a third data value is accessible by moving *both* the first and second displaceable portions.” (Emphasis added).

In contrast to the present claims 26, 36, and 38, the Otsuka reference merely teaches four contact points that can be pressed down either individually or simultaneously to produce up to five different characters. *See* Otsuka, col. 3, lines 26-38. Specifically, the Otsuka reference teaches “a key top 10, a key substrate 12, and four contact points 14a to 14d which are provided on each side in the peripheral portion of the key substrate 12.” *Id.* at col. 4, lines 7-10. Further, the Otsuka reference teaches that “[a]ny contact point among the four contact points can be contacted depending on which one of the pressing positions 1 to 5 is pressed on the key top 10.” *Id.* at col. 4, lines 10-12. As illustrated in FIG. 1 of the Otsuka reference, it is clear that the Otsuka reference merely teaches independently pushing straight down on different portions (e.g., positions 1-5) of key top 10 to access different values. The Otsuka reference does not teach the ability to access additional values by *cooperatively* depressing and/or deflecting various portions of a key. For example, pushing at position 5 is merely depressing a single portion, not *cooperatively depressing and deflecting*. Accordingly, the Applicant asserts that the Otsuka reference is deficient.

The Krishnan reference does not remedy the deficiencies of the Otsuka reference. In fact, the Examiner does not even allege that the Krishnan reference remedies the deficiencies set forth above. Rather, the Krishnan reference is apparently merely cited for its teaching of a multifunctional key. *See* Office Action, pages 6-7. However, in contrast to the present claims 26, 36, and 38, the Krishnan reference teaches a cluster key arrangement including primary and secondary keys that provide a user with the ability to select one of a plurality of key elements by depressing different portions of the key. *See* Krishnan, col. 14, lines 1-14. Specifically, the Krishnan reference teaches that “[i]f the primary key is depressed, none of the associated keys may contact the substrate.” *Id.* at col. 7, lines 27-29. Thus, secondary keys cannot be actuated when the primary key is actuated. *See id.* at col. 8, lines 64-65. Further, when more than one secondary key is depressed, a signal is not generated, an error signal is generated, or uniqueness is established by precluding all but one key from actuation. *See id.* at col. 8, lines 34-55; *see also id.* at col. 15, lines 23-29. Clearly, the Krishnan reference fails to teach the ability to access additional values by cooperatively depressing and/or deflecting various portions of a key.

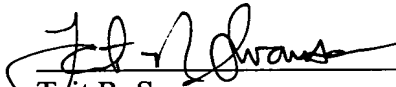
In view of the deficiencies set forth above, Applicant respectfully stresses that the cited references, taken alone or in combination, fail to teach or suggest all of the present claim features of independent claims 26, 36, and 38 and the claims depending therefrom. Accordingly, Applicant respectfully asserts that claims 26-29 and 32-41 are not obvious over Otsuka in view of Krishnan. Applicant respectfully requests withdrawal of the foregoing rejections under 35 U.S.C. § 103.

Conclusion

In view of the amendments and remarks set forth above, the Applicant respectfully requests withdrawal of all of the Examiner's rejections and objections. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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Tait R. Swanson
Registration No. 48,226
(281) 970-4545

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
Legal Department, M/S 35
P.O. Box 272400
Fort Collins, Colorado 80527-2400